

WEST

Generate Collection

L2: Entry 2 of 16

File: USPT

Sep 14, 1999

DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

ABPL:

The present invention relates to the use of an .alpha.-tocopherol phosphate, especially in its dl or d form, or an ester thereof, of the general formula ##STR1## in which: R.sub.1 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, or an .alpha.-tocopheryl radical; and R.sub.2 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as methyl or ethyl radical in particular, or an oxyethylene chain of the formula ##STR2## in which R.sub.3 and R.sub.4 independently are a hydrogen atom or a methyl radical and n is an integer greater than or equal to 1, or a salt thereof, for preparing a pharmaceutical, dermatological or cosmetic composition for the prevention or treatment of allergic manifestations such as skin allergy or bronchial asthma, or inflammatory manifestations, or for the prevention or treatment of the harmful effects of free radicals.

BSPR:

The present invention relates in general terms to the use of an .alpha.-tocopherol phosphate, or an ester thereof, or a salt of these compounds, for preparing pharmaceutical, cosmetic or dermatological compositions with antiallergic or antiinflammatory activity or for the prevention or treatment of the harmful effects of free radicals, and to pharmaceutical, cosmetic or dermatological compositions with antiallergic or antiinflammatory activity or for the prevention or treatment of the harmful effects of free radicals, in which said compound is incorporated.

BSPR:

dl-.alpha.-Tocopherol phosphate is also known (see P. KARRER et al., Helv. Chim. Acta (1940) 23, 1137-8), as is its action on muscle metabolism (see J. Biol. Chem. 1942, 146, pages 309-321). Another document describes the biological role as an antioxidant on brain tissue (Biol. Antioxidants Trans., 1st Conf., 1946, pages 61-62). An anticoagulant action through an action on the polymerization of fibrin has also been described (Can. J. Biochem. and Physiol. 1959, 37, pages 501-505). An antimicrobial action in vitro on *B. subtilis* and *S. aureus* has also been described (Naturwissenschaften 1960, 47, page 17).

BSPR:

It has now been discovered, totally surprisingly and unexpectedly, that .alpha.-tocopherol phosphate, especially in its dl or d form, or an ester thereof, of the general formula ##STR3## in which: R.sub.1 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, or an .alpha.-tocopheryl radical; and

BSPR:

Thus, according to a first feature, the present invention covers the use of an .alpha.-tocopherol phosphate, especially in its dl or d form, or an ester thereof, of the general formula ##STR5## in which: R.sub.1 is a hydrogen atom, an alkyl radical having from 1 to 4 carbon atoms, such as the methyl or ethyl radical in particular, or an .alpha.-tocopheryl radical; and

BSPR:

Thus the products used according to the present invention are .alpha.-tocopherol phosphates or esters thereof, it being possible for these products to take the form of cosmetically, dermatologically or pharmaceutically acceptable salts such as, for example, alkali metal salts, especially sodium salts (monosodium or disodium salt), or alkaline earth metal salts, especially magnesium salts, or else ammonium salts or salts of primary, secondary or tertiary amines such as, in particular, diethylamine, diethanolamine, triethylamine or triethanolamine.

BSPR:

In another advantageous embodiment according to the invention, a compound of formula I as defined above, preferably as a salt, is used in the form of small liposome-type vesicles obtained by dispersing said compound or said salt in water or in an aqueous medium such as a buffer solution, especially by means of mechanical stirring followed by homogenization, for example with the aid of ultrasound or a homogenizer under pressure.

BSPR:

In a currently preferred embodiment, the compound of formula (I) mentioned above is dl-.alpha.-tocopherol phosphate. The preferred salts are the monosodium salts and the disodium salt.

BSPR:

In an advantageous embodiment, the cosmetic or dermatological composition comprises, as the active ingredient, at least one compound of formula (I) as defined above, preferably as a salt, in the form of small liposome-type vesicles obtained by dispersing said compound or said salt in water or in an aqueous medium such as a buffer solution, especially by means of mechanical stirring followed by homogenization, for example with the aid of ultrasound or a homogenizer under pressure.

BSPR:

In a currently preferred embodiment, the compound of formula (I) mentioned above is dl-.alpha.-tocopherol phosphate. The preferred salts are the monosodium salts and the disodium salt.

DEPR:

0.8 g of powdered disodium dl-.alpha.-tocopherol phosphate, obtained by the method described by P. KARRER (Helv. Chim. Acta (1940) 23, 1137-8), is weighed out.

DEPR:

The mixture is then homogenized by ultrasound for 10 min at 150 W until a clear suspension is obtained, which gives rise to the production of liposome-type vesicles of disodium tocopherol phosphate.

DEPR:

The pH is subsequently lowered to 7 by the addition of about 3 ml of 0.5 N HCl, with stirring, and then adjusted to 6.5 by the addition of 0.1 N HCl, with stirring. At this pH the tocopherol phosphate is now in the form of the monosodium salt.

DEPR:

The resulting size of the vesicles of monosodium .alpha.-tocopherol phosphate can be determined for example by means of an Autosizer 2C from MALVERN. The average size measured in this Example is of the order of 100 nm.

DEPR:

The Example described gave about 100 g of suspension containing about 0.8% of monosodium dl-.alpha.-tocopherol phosphate in the form of liposome-type vesicles of substantially homogeneous sizes.

DEPR:

100 g of this gel are added to the 100 g of homogenized suspension obtained

above to give a gelled composition having a monosodium .alpha.-tocopherol phosphate concentration of about 0.4%.

DEPR:

Gelled compositions having various .alpha.-tocopherol phosphate concentrations can be obtained by the method indicated above.

DEPR:

a) Gel containing 0.128% of monosodium dl-.alpha.-tocopherol phosphate (TP.Na) according to the invention

DEPR:

Tests are carried out on cultures of human keratinocytes. The stock solution of the test product according to the invention is a 0.1% aqueous solution of disodium d-.alpha.-tocopherol phosphate. This solution is used at different dilutions in MCDB153 culture medium (Irvine.RTM.) supplemented with ethanolamine, phosphoethanolamine, cortisone, insulin and calcium (0.1 mM), so as to give the following concentrations of d-.alpha.-tocopherol phosphate salt:

DEPR:

Procedure: Mixture A is heated, with stirring, to give a homogeneous mixture. Mixture B is prepared by dispersing the Carbopol.RTM. 1342 in an aqueous solution containing the EDTA and the propylene glycol in 49.56 g of distilled water, and neutralizing with the triethanolamine. The 0.4% dispersion (non-gelled) of dl-.alpha.-tocopherol phosphate, obtained according to Example 1, is then added.

DEPR:

0.1 g of powdered disodium .alpha.-tocopherol phosphate is dissolved in 99.9 g of trioctyl citrate at 70.degree. C. for 8 h, with magnetic stirring.

DEPR:

Preparation: The disodium tocopherol phosphate is dissolved in the absolute alcohol, and the other constituents are dissolved in the water to give a separate solution. The two solutions obtained are mixed and the whole is homogenized by means of ultrasound.

DEPR:

The 4% dispersion of .alpha.-tocopherol phosphate is prepared as in Example 1, except that this dispersion has a greater concentration of monosodium .alpha.-tocopherol phosphate.

DEPR:

The dispersion of monosodium tocopherol phosphate is prepared as in Example 1. After homogenization with ultrasound, a colloidal solution is obtained which is then incorporated into the buffered excipient.

DEPR:

This composition is prepared by incorporating the disodium tocopherol phosphate, previously dispersed in water, into the aqueous phase of the emulsion. The emulsion is then prepared by the conventional procedure.

DEPL:

a) Preparation of a suspension of monosodium dl-.alpha.-tocopherol phosphate

DEPL:

b) Preparation of a gelled composition of monosodium .alpha.-tocopherol phosphate

DEPU:

Group no. 3: gel of monosodium dl-.alpha.-tocopherol phosphate (TP.Na) according to the invention

CLPR:

7. The method of claim 1, wherein said compound of formula (I) is

DL-alpha-tocopherol phosphate.

CLPR:

15. The method of claim 9, wherein said compound of formula (I) is DL-alpha-tocopherol phosphate.

CLPR:

17. A method for cosmetic care comprising topically delivering on body skin areas of a person a cosmetically effective amount of a cosmetically acceptable salt of a tocopherol phosphate, selected from the group consisting of:

CLPR:

18. The method of claim 17, wherein said cosmetically acceptable salt of tocopherol phosphate is monosodium or disodium DL-alpha-tocopherol phosphate incorporated in a cosmetically acceptable excipient to constitute a composition wherein said monosodium or disodium salt of tocopherol phosphate is present in a weight concentration ranging from 0.001 % to 10 % with respect to a total weight of said composition.

CLPR:

19. A method of protection of skin cells from damage caused by free radicals comprising topically applying on body skin areas of a person an effective amount of a cosmetically acceptable salt of a tocopherol phosphate, selected from the group consisting of:

CLPR:

20. The method of claim 19, wherein said cosmetically acceptable salt of tocopherol phosphate is monosodium or disodium DL-alpha-tocopherol phosphate incorporated in a cosmetically acceptable excipient to constitute a composition wherein said monosodium or disodium salt of tocopherol phosphate is present in a weight concentration ranging from 0.001% to 10% with respect to a total weight of said composition.

CLPV:

b) a DL form of said tocopherol-phosphate of formula

CLPV:

c) a D form of said tocopherol-phosphate of formula (I); and

CLPV:

d) a cosmetically acceptable ester of said tocopherol-phosphate of formula (I), wherein one of R._{sub.1} and R._{sub.2} is alkyl, alpha-tocopheryl or R._{sub.2} O represents said oxyethylenated chain, and the other of R._{sub.1} and R._{sub.2} is a hydrogen atom, said tocopherol compound being optionally admixed with a cosmetically acceptable excipient.

CLPV:

b) a DL form of said tocopherol-phosphate of formula

CLPV:

c) a D form of said tocopherol-phosphate of formula (I); and

CLPV:

d) a cosmetically acceptable ester of said tocopherol-phosphate of formula (I), wherein one of R._{sub.1} and R._{sub.2} is alkyl, alpha-tocopheryl or R._{sub.2} O represents said oxyethylenated chain, and the other of R._{sub.1} and R._{sub.2} is a hydrogen atom;

WEST

 [Generate Collection](#)

L3: Entry 10 of 20

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6087353 A

TITLE: Phytosterol compositions and use thereof in foods, beverages, pharmaceuticals, nutraceuticals and the like

BSPR:

The present invention further comprises foods, beverages, pharmaceuticals, nutraceuticals and the like which comprise one or more esterified and subsequently hydrogenated phytosterols. These "formulations" include, but are not limited to, the composition incorporated into edible oils and fat-based foods (such as margarines, butter, mayonnaise, dressing, shortenings, and cheeses), and formed into suspensions, emulsions, microemulsions, liposomes, niosomes and general hydrated lipid phases. The composition additionally may be incorporated into numerous pharmaceutical dosage forms as described in detail below.

WEST

Generate Collection

L3: Entry 13 of 20

File: USPT

Mar 30, 1999

DOCUMENT-IDENTIFIER: US 5888563 A

TITLE: Use of bilayer forming emulsifiers in nutritional compositions comprising divalent mineral salts to minimize off-tastes and interactions with other dietary components

BSPR:

Another important component of the nutritional iron compositions of the present invention is an edible carrier. This edible carrier comprises an emulsifier capable of forming a bilayer structure, i.e., an emulsifier that can form a vesicle or liposome. Inclusion of these emulsifiers in the edible carrier: (a) prevents or minimizes the development of undesirable color that can be caused by ferrous salts such as ferrous fumarate or ferrous succinate in foods and beverages, especially chocolate flavored edible mixes, that contain components such as anthocyanins, flavanoids, tannins, and the like; (b) minimizes the characteristic off-taste effects imparted by the various divalent mineral salts, including the metallic taste imparted by the ferrous salts; (c) prevents or minimizes the undesired oxidation of any vitamins/fats/flavors that are present; and (d) improves the retention of iodine within the edible mix. Suitable emulsifiers include phospholipids such as phosphatidyl choline, phosphatidylethanolamine, phosphatidylinositol, and mixtures thereof, and in particular compositions containing one or more of these phospholipids such as the lecithins, cephalins and plasmalogens, glycolipids such as cerbroside and glycolipid-containing compositions, sorbitan esters of long chain saturated (C_{sub.16} -C_{sub.18}) fatty acids, (e. g., SPAN 40), lactic acid esters of long chain saturated (C_{sub.16} -C_{sub.18}) fatty acid monoglycerides (e. g., Lactem), diacetyl tartaric acid esters of long chain saturated (C_{sub.16} -C_{sub.18}) fatty acid monoglycerides (e. g., Panodan FDPK), bile salts and bile acids, especially the chenodeoxycholic acid derivatives and secondary deoxycholic acid derivatives such as glycochenodeoxycholic acid and taurochenodeoxycholic acid, as well as mixtures of these emulsifiers. Lecithin is particularly preferred as the emulsifier for use in the nutritional compositions of the present invention.

WEST **Generate Collection**

L3: Entry 15 of 20

File: USPT

Dec 22, 1998

DOCUMENT-IDENTIFIER: US 5851578 A

TITLE: Clear or translucent liquid beverage with soluble fiber and nutrients

ABPL:

A formulation of physiologically-effective clear/translucent beverage containing non-gel forming soluble fibre and a soluble salt of calcium and other mineral supplements along with pharmaceutically-active components with organoleptic properties similar to a regular beverage is disclosed. This formulation refers to a powder mix, a liquid concentrate or a ready-to-drink bottled beverage. The powder mix and the liquid concentrate can be diluted with water or other ingestible liquids to reconstitute into the above beverage. The beverage contains food acids as buffering agents to prevent precipitation and enhance solubilization of the metal salts in neutral or weakly alkaline conditions. The drink could contain other nutrients, vitamins, pharmaceutically active ingredients, liposomes and herbal products. The mineral salts can be incorporated into the beverage either by in situ preparation by reaction of the basic metal salts with food acids or by solubilizing the appropriate preformed organic salts. The beverage can be formulated as a carbonated cola drink providing adequate amount of fiber, calcium and other nutrients, especially for population known to have dietary deficiency in these ingredients or for those having problems related to their absorption.

CLPR:

5. Beverage of claim 1, where nutrients and vitamins are incorporated in the form of liposomes, with an average particle size of less than 250 nm.

CLPR:

6. The beverage of claim 5, where the liposomes, made of any one of hydrophobic vitamins or combinations thereof, are in 0.001 to 10% concentration at the time of human intake.

CLPR:

7. Beverage of claim 3, where the liposomes incorporated are partially stabilized by the soluble fiber in the beverage.

WEST **Generate Collection**

L3: Entry 18 of 20

File: EPAB

Dec 22, 1998

DOCUMENT-IDENTIFIER: US 5851578 A

TITLE: Clear or translucent liquid beverage with souluble fiber and nutrients

FPAR:

A formulation of physiologically-effective clear/translucent beverage containing non-gel forming soluble fibre and a soluble salt of calcium and other mineral supplements along with pharmaceutically-active components with organoleptic properties similar to a regular beverage is disclosed. This formulation refers to a powder mix, a liquid concentrate or a ready-to-drink bottled beverage. The powder mix and the liquid concentrate can be diluted with water or other ingestible liquids to reconstitute into the above beverage. The beverage contains food acids as buffering agents to prevent precipitation and enhance solubilization of the metal salts in neutral or weakly alkaline conditions. The drink could contain other nutrients, vitamins, pharmaceutically active ingredients, liposomes and herbal products. The mineral salts can be incorporated into the beverage either by in situ preparation by reaction of the basic metal salts with food acids or by solubilizing the appropriate preformed organic salts. The beverage can be formulated as a carbonated cola drink providing adequate amount of fiber, calcium and other nutrients, especially for population known to have dietary deficiency in these ingredients or for those having problems related to their absorption.

WEST [Generate Collection](#)

L3: Entry 19 of 20

File: DWPI

Mar 8, 1995

DERWENT-ACC-NO: 1997-236780

DERWENT-WEEK: 199722

COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Beverage containing liposome of phospholipid of natural soybean

ABTX:

Health care beverage contains liposome of phospholipid. The beverage is prepared by using natural soybean phospholipid as main raw material which is homogenised by adding water.

TTX:

BEVERAGE CONTAIN LIPOSOME PHOSPHOLIPID NATURAL SOY

WEST**Generate Collection****Search Results - Record(s) 1 through 20 of 20 returned.** **1. Document ID: US 6288130 B1**

L3: Entry 1 of 20

File: USPT

Sep 11, 2001

US-PAT-NO: 6288130

DOCUMENT-IDENTIFIER: US 6288130 B1

TITLE: Oil-free glycerophospholipid formulations and method for the production thereof

DATE-ISSUED: September 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Heidlas; Jurgen	Trostberg			DEX
Zirzow; Karl-Heinz	Trostberg			DEX
Wiesmuller; Johann	Garching			DEX
Ober; Martin	Altenmarkt			DEX
Michlbauer; Franz	Kirchweidach			DEX
Graefe; Jurgen	Trostberg			DEX

US-CL-CURRENT: 516/56; 426/662, 554/83[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KMC](#) | [Draw Desc](#) | [Image](#) **2. Document ID: US 6248520 B1**

L3: Entry 2 of 20

File: USPT

Jun 19, 2001

US-PAT-NO: 6248520

DOCUMENT-IDENTIFIER: US 6248520 B1

TITLE: Nucleic acid molecules encoding nuclear hormone receptor coactivators and uses thereof

DATE-ISSUED: June 19, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roeder; Robert G.	New York	NY		
Fondell; Joseph D.	Baltimore	MD		
Xingyuan; Chao	New York	NY		
Ito; Mitsuhiro	New York	NY		

US-CL-CURRENT: 435/6; 435/91.1, 435/91.2, 435/91.21, 435/91.51, 514/44

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	---------------------------	-----------------------

3. Document ID: US 6247995 B1

L3: Entry 3 of 20

File: USPT

Jun 19, 2001

US-PAT-NO: 6247995

DOCUMENT-IDENTIFIER: US 6247995 B1

TITLE: Bioluminescent novelty items

DATE-ISSUED: June 19, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 446/473; 124/74, 124/76, 222/1, 42/54, 435/189

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	---------------------------	-----------------------

4. Document ID: US 6162474 A

L3: Entry 4 of 20

File: USPT

Dec 19, 2000

US-PAT-NO: 6162474

DOCUMENT-IDENTIFIER: US 6162474 A

TITLE: Vitamin powders for beverage applications and method of making

DATE-ISSUED: December 19, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chen; Chyi-Cheng	Wayne	NJ		
Mergens; William Joseph	West Caldwell	NJ		
Milbank; Mark Cordes	West Milford	NJ		

US-CL-CURRENT: 426/72; 424/439, 424/464, 424/466, 426/103, 426/471, 426/519,
426/590, 426/599, 426/650, 426/73, 426/98

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	---------------------------	-----------------------

5. Document ID: US 6156795 A

L3: Entry 5 of 20

File: USPT

Dec 5, 2000

US-PAT-NO: 6156795

DOCUMENT-IDENTIFIER: US 6156795 A

TITLE: N-L-alpha-aspartyl-L-phenylalanine 1-methyl ester and its derivatives for appetite enhancement

DATE-ISSUED: December 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Edmundson; Allen B.	Oklahoma City	OK		
Manion; Carl V.	Oklahoma City	OK		

US-CL-CURRENT: 514/538

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw. Desc](#) | [Image](#)

6. Document ID: US 6152358 A

L3: Entry 6 of 20

File: USPT

Nov 28, 2000

US-PAT-NO: 6152358

DOCUMENT-IDENTIFIER: US 6152358 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: November 28, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 229/87.19; 435/189, 493/955

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw. Desc](#) | [Image](#)

7. Document ID: US 6124448 A

L3: Entry 7 of 20

File: USPT

Sep 26, 2000

US-PAT-NO: 6124448

DOCUMENT-IDENTIFIER: US 6124448 A

TITLE: Nucleic acid primers and probes for the mammalian OB gene

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Friedman; Jeffrey M.	New York	NY		
Zhang; Yiyi	New York	NY		
Proenca; Ricardo	Astoria	NY		
Maffei; Margherita	New York	NY		

US-CL-CURRENT: 536/24.3; 536/24.31

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw Desc](#) | [Image](#)

8. Document ID: US 6124439 A

L3: Entry 8 of 20

File: USPT

Sep 26, 2000

US-PAT-NO: 6124439

DOCUMENT-IDENTIFIER: US 6124439 A

TITLE: OB polypeptide antibodies and method of making

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Friedman; Jeffrey M.	New York	NY		
Zhang; Yiyi	New York	NY		
Proenca; Ricardo	Astoria	NY		

US-CL-CURRENT: 530/388.24; 424/130.1, 424/133.1, 424/135.1, 424/141.1,
424/142.1, 424/145.1, 424/158.1, 424/178.1, 435/326, 435/328, 435/331, 435/335,
435/336, 435/70.2, 435/70.21, 435/975, 530/387.3, 530/387.9, 530/388.15,
530/388.73, 530/389.1, 530/389.2, 530/391.1, 530/391.3, 530/391.7, 530/864

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw Desc](#) | [Image](#)

9. Document ID: US 6113886 A

L3: Entry 9 of 20

File: USPT

Sep 5, 2000

US-PAT-NO: 6113886

DOCUMENT-IDENTIFIER: US 6113886 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: September 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 424/49; 424/63, 424/64, 424/69, 424/70.1, 424/70.6, 424/70.7,
424/78.02, 424/94.4, 435/189, 510/119, 510/135, 510/392, 510/481

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

10. Document ID: US 6087353 A

L3: Entry 10 of 20

File: USPT

Jul 11, 2000

US-PAT-NO: 6087353

DOCUMENT-IDENTIFIER: US 6087353 A

TITLE: Phytosterol compositions and use thereof in foods, beverages,
pharmaceuticals, nutraceuticals and the like

DATE-ISSUED: July 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stewart; David John	N. Vancouver			CAX
Milanova; Radka	Vancouver			CAX
Zawistowski; Jerzy	Vancouver			CAX
Wallis; Simon Howard	Burnaby			CAX

US-CL-CURRENT: 514/182; 514/824

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KMC](#) | [Draw Desc](#) | [Image](#)

11. Document ID: US 6048837 A

L3: Entry 11 of 20

File: USPT

Apr 11, 2000

US-PAT-NO: 6048837

DOCUMENT-IDENTIFIER: US 6048837 A

TITLE: OB polypeptides as modulators of body weight

DATE-ISSUED: April 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Friedman; Jeffrey M.	New York	NY		
Zhang; Yiyang	New York	NY		
Proenca; Ricardo	Astoria	NY		

US-CL-CURRENT: 514/2; 424/85.1, 514/12, 514/21, 514/8, 514/844, 514/866, 514/909

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Drawn Desc](#) | [Image](#)

12. Document ID: US 6013621 A

L3: Entry 12 of 20

File: USPT

Jan 11, 2000

US-PAT-NO: 6013621

DOCUMENT-IDENTIFIER: US 6013621 A

TITLE: Method of treating psychosis and/or hyperactivity

DATE-ISSUED: January 11, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nishi; Akinori	Fukuoka			JPX
Snyder; Gretchen L.	New York	NY		
Fienberg; Allen A.	New York	NY		
Greengard; Paul	New York	NY		

US-CL-CURRENT: 514/2

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Drawn Desc](#) | [Image](#)

13. Document ID: US 5888563 A

L3: Entry 13 of 20

File: USPT

Mar 30, 1999

US-PAT-NO: 5888563

DOCUMENT-IDENTIFIER: US 5888563 A

TITLE: Use of bilayer forming emulsifiers in nutritional compositions comprising divalent mineral salts to minimize off-tastes and interactions with other dietary components

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mehansho; Haile	Fairfield	OH		
Mellican; Renee Irvine	Woodlawn	OH		
Trinh; Toan	Maineville	OH		

US-CL-CURRENT: 426/72; 426/289, 426/293, 426/593, 426/654, 426/73, 426/74

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	--------	------	-----------	-------

14. Document ID: US 5876995 A

L3: Entry 14 of 20

File: USPT

Mar 2, 1999

US-PAT-NO: 5876995

DOCUMENT-IDENTIFIER: US 5876995 A

TITLE: Bioluminescent novelty items

DATE-ISSUED: March 2, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bryan; Bruce	Beverly Hills	CA	90210	

US-CL-CURRENT: 435/189; 426/104, 426/250, 426/262, 426/268, 426/383, 426/422,
426/540, 426/590, 426/592, 426/656, 426/66, 530/350

Full	Title	Citation	Front	Review	Classification	Date	Reference	KOMC	Draw Desc	Image
------	-------	----------	-------	--------	----------------	------	-----------	------	-----------	-------

15. Document ID: US 5851578 A

L3: Entry 15 of 20

File: USPT

Dec 22, 1998

US-PAT-NO: 5851578

DOCUMENT-IDENTIFIER: US 5851578 A

TITLE: Clear or translucent liquid beverage with soluble fiber and nutrients

DATE-ISSUED: December 22, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gandhi; Amita	Louisville	KY		

US-CL-CURRENT: 426/590; 426/573, 426/599, 426/73, 426/74, 426/99

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KIMC](#) | [Draw Desc](#) | [Image](#)

 16. Document ID: US 5720551 A

L3: Entry 16 of 20

File: USPT

Feb 24, 1998

US-PAT-NO: 5720551

DOCUMENT-IDENTIFIER: US 5720551 A

TITLE: Forming emulsions

DATE-ISSUED: February 24, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Shechter; Tal	Randolph	MA	02368	

US-CL-CURRENT: 366/147; 366/176.1, 366/181.5, 366/336[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KIMC](#) | [Draw Desc](#) | [Image](#)

 17. Document ID: US 5707670 A

L3: Entry 17 of 20

File: USPT

Jan 13, 1998

US-PAT-NO: 5707670

DOCUMENT-IDENTIFIER: US 5707670 A

TITLE: Use of bilayer forming emulsifiers in nutritional compositions comprising divalent mineral salts to minimize off-tastes and interactions with other dietary components

DATE-ISSUED: January 13, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mehansho; Haile	Fairfield	OH		
Mellican; Renee Irvine	Woodlawn	OH		
Trinh; Toan	Maineville	OH		

US-CL-CURRENT: 426/73; 426/103, 426/593, 426/631, 426/74, 426/94, 426/97, 426/99[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KIMC](#) | [Draw Desc](#) | [Image](#)

 18. Document ID: US 5851578 A

L3: Entry 18 of 20

File: EPAB

Dec 22, 1998

PUB-NO: US005851578A

DOCUMENT-IDENTIFIER: US 5851578 A

TITLE: Clear or translucent liquid beverage with soluble fiber and nutrients

PUBN-DATE: December 22, 1998

INVENTOR-INFORMATION:

NAME

COUNTRY

GANDHI, AMITA

US

INT-CL (IPC): A23L 2/54; A23L 2/68

EUR-CL (EPC): A23L001/304; A23L001/308, A23L002/54 , A23L002/68

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMIC](#) | [Drawn Desc](#) | [Image](#)

19. Document ID: CN 1099584 A

L3: Entry 19 of 20

File: DWPI

Mar 8, 1995

DERWENT-ACC-NO: 1997-236780

DERWENT-WEEK: 199722

COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Beverage containing liposome of phospholipid of natural soybean

INVENTOR: HE, Z; YANG, Q

PRIORITY-DATA: 1993CN-0116619 (August 28, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CN 1099584 A	March 8, 1995		000	A23L002/00

INT-CL (IPC): A23L 2/00

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMIC](#) | [Drawn Desc](#) | [Image](#)

20. Document ID: AU 8431989 A, CA 1231048 A, DE 3485968 G, EP 140521 A, EP 140521 B1, JP 60078350 A, US 4713324 A

L3: Entry 20 of 20

File: DWPI

Mar 7, 1985

DERWENT-ACC-NO: 1985-099025
DERWENT-WEEK: 198517
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Analytical compsn. for inverted latency specific binding assay - contains liposome(s) giving detectable signal

INVENTOR: FOX, J P; HEDAYA, E ; LIPPMAN, V

PRIORITY-DATA: 1983US-0528496 (September 1, 1983)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 8431989 A	March 7, 1985		051	
CA 1231048 A	January 5, 1988		000	
DE 3485968 G	December 3, 1992		000	G01N033/542
EP 140521 A	May 8, 1985	E	000	
EP 140521 B1	October 28, 1992	E	020	G01N033/542
JP 60078350 A	May 4, 1985		000	
US 4713324 A	December 15, 1987		000	

INT-CL (IPC): A61K 39/00; C12Q 1/00; G01N 33/54; G01N 33/542; G01N 33/544; G01N 33/554

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Drawn Desc](#) | [Image](#)

[Generate Collection](#)

Terms	Documents
liposome\$ same beverage\$	20

[Display](#) Documents, starting with Document:

Display Format: [Change Format](#)

WEST **Generate Collection**

L6: Entry 31 of 36

File: JPAB

Dec 21, 1992

DOCUMENT-IDENTIFIER: JP 04368326 A
TITLE: NEW COMPOSITION**FPAR:**

CONSTITUTION: (A) A compound represented by the formula (R1-R6 are H or 1-3C alkyl. R1 and R2 and/or R4 and R5 form methylene or ethylene; 1-n are 0 or 1) and showing respectively recognized effects such as Δ -5-unsaturated enzyme inhibitory effect, improvement of liver function, cholesterol-reducing effect, carcinogenesis inhibition and drunken sickness prevention, e.g. sesamin, sesaminol, episesamin, episesaminol or sesamolin is blended with (B) an anti-oxidizing agent such as tocopherol having a high-safety preferably in a ratio of 0.001-1000 pts.wt (B) based on 1 pts.wt. (A), thus giving the objective medical composition, food additives or beverage in which the above-mentioned effects, especially cholesterol-reducing effect of the active component (A) are improved.

WEST**Search Results - Record(s) 1 through 30 of 36 returned.** 1. Document ID: US 6294190 B1

L6: Entry 1 of 36

File: USPT

Sep 25, 2001

US-PAT-NO: 6294190

DOCUMENT-IDENTIFIER: US 6294190 B1

TITLE: Antioobestic agent containing procyanidin as the active ingredient

DATE-ISSUED: September 25, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nakahara; Koichi	Osaka			JPX
Nakai; Masaaki	Osaka			JPX
Tamura; Yukiyoshi	Hiroshima-ken			JPX

US-CL-CURRENT: 424/442; 424/422, 424/439 2. Document ID: US 6258855 B1

L6: Entry 2 of 36

File: USPT

Jul 10, 2001

US-PAT-NO: 6258855

DOCUMENT-IDENTIFIER: US 6258855 B1

TITLE: Method of retarding and ameliorating carpal tunnel syndrome

DATE-ISSUED: July 10, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lorenz; R. Todd	Kailua-Kona	HI		
Cysewski; Gerald R.	Kailua-Kona	HI		

US-CL-CURRENT: 514/691 3. Document ID: US 6156354 A

L6: Entry 3 of 36

File: USPT

Dec 5, 2000

US-PAT-NO: 6156354

DOCUMENT-IDENTIFIER: US 6156354 A

TITLE: Hyper-absorption of vitamin E dispersed in milks

DATE-ISSUED: December 5, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Perlman; Daniel	Arlington	MA		
Hayes; Kenneth C.	Wellesley	MA		

US-CL-CURRENT: 426/72; 424/439, 426/519, 426/580, 426/585

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Draw Desc](#) | [Image](#)

4. Document ID: US 6123945 A

L6: Entry 4 of 36

File: USPT

Sep 26, 2000

US-PAT-NO: 6123945

DOCUMENT-IDENTIFIER: US 6123945 A

TITLE: Water-soluble anti-oxidation agents

DATE-ISSUED: September 26, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nakatsu; Tetsuo	Chappaqua	NY		
Yamasaki; Akiko	New Milford	NJ		

US-CL-CURRENT: 424/745

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [Claims](#) | [KOMC](#) | [Draw Desc](#) | [Image](#)

5. Document ID: US RE36815 E

L6: Entry 5 of 36

File: USPT

Aug 8, 2000

US-PAT-NO: RE36815

DOCUMENT-IDENTIFIER: US RE36815 E

TITLE: Flavor protectant closure liner compositions

DATE-ISSUED: August 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Teumac; Fred N.	Spartanburg	SC		
Rassouli; Mahmood R.	Lebanon	PA		
Rusnock Surmick; Janine	Hazleton	PA		
Irwin; Anthony	Columbus	OH		

US-CL-CURRENT: 523/100, 215/230, 426/398, 426/66, 428/36.92, 524/110, 524/168,
524/169, 524/418

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw. Desc](#) | [Image](#)

6. Document ID: US 6011067 A

L6: Entry 6 of 36

File: USPT

Jan 4, 2000

US-PAT-NO: 6011067

DOCUMENT-IDENTIFIER: US 6011067 A

TITLE: Antioxidant composition for the treatment of psoriasis and related diseases

DATE-ISSUED: January 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh; Theodore	Atlanta	GA		

US-CL-CURRENT: 514/562, 424/439, 424/440, 424/441, 424/464, 424/49, 424/54,
424/702, 514/162, 514/165, 514/171, 514/474, 514/627, 604/58

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw. Desc](#) | [Image](#)

7. Document ID: US 6007813 A

L6: Entry 7 of 36

File: USPT

Dec 28, 1999

US-PAT-NO: 6007813

DOCUMENT-IDENTIFIER: US 6007813 A

TITLE: Method and composition for treating ulcers and secretion of gastric acid

DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Taketomo; Naoki	Tokyo			JPX
Tsunoo; Akinobu	Tokyo			JPX
Itoh; Hiroyuki	Kanagawa			JPX

US-CL-CURRENT: 424/115; 424/123, 435/101, 435/171, 435/41, 435/72, 514/23,
514/54, 514/826, 514/929

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KIMC](#) | [Drawn Desc](#) | [Image](#)

8. Document ID: US 5912330 A

L6: Entry 8 of 36

File: USPT

Jun 15, 1999

US-PAT-NO: 5912330

DOCUMENT-IDENTIFIER: US 5912330 A

TITLE: Crystalline maltosyl glucoside, and its production and use

DATE-ISSUED: June 15, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Tabuchi; Akihiko	Okayama			JPX
Shibuya; Takashi	Okayama			JPX
Sugimoto; Toshiyuki	Okayama			JPX
Miyake; Toshio	Okayama			JPX

US-CL-CURRENT: 536/4.1; 435/101, 435/72, 435/74, 435/96, 435/97, 435/98, 435/99,
536/123.1, 536/123.13, 536/127

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KIMC](#) | [Drawn Desc](#) | [Image](#)

9. Document ID: US 5889046 A

L6: Entry 9 of 36

File: USPT

Mar 30, 1999

US-PAT-NO: 5889046

DOCUMENT-IDENTIFIER: US 5889046 A

TITLE: Method for preventing or alleviating cerebral apoplexy

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Akimoto; Kengo	Osaka			JPX
Morimoto; Shiro	Osaka			JPX
Matsumura; Yasuo	Kita Katsuragi-gun			JPX
Yoshizumi; Hajime	Nara			JPX
Murakami; Tetsuo	Nara			JPX

US-CL-CURRENT: 514/470; 514/452, 514/464

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

10. Document ID: US 5863964 A

L6: Entry 10 of 36

File: USPT

Jan 26, 1999

US-PAT-NO: 5863964

DOCUMENT-IDENTIFIER: US 5863964 A

TITLE: Flavor protectant closure liner compositions

DATE-ISSUED: January 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Teumac; Fred N.	Conyngham	PA		
Rassouli; Mahmood R.	Hazelton	PA		
Rusnock; Janine M.	Hazelton	PA		
Irwin; Anthony	Baldwinsville	NY		

US-CL-CURRENT: 523/100; 215/230, 426/398, 426/66, 428/36.92, 524/110, 524/168,
524/169, 524/418

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

11. Document ID: US 5840681 A

L6: Entry 11 of 36

File: USPT

Nov 24, 1998

US-PAT-NO: 5840681

DOCUMENT-IDENTIFIER: US 5840681 A

TITLE: X-ray induced skin damage protective composition

DATE-ISSUED: November 24, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh; Theodore	Atlanta	GA		
Warshaw; Michael A.	Savannah	GA		

US-CL-CURRENT: 514/8; 424/144.1, 435/7.1, 530/388.22

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw. Desc](#) | [Image](#)

12. Document ID: US 5780620 A

L6: Entry 12 of 36

File: USPT

Jul 14, 1998

US-PAT-NO: 5780620

DOCUMENT-IDENTIFIER: US 5780620 A

TITLE: Non-reducing oligosaccharides and their production and use

DATE-ISSUED: July 14, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Mandai; Takahiko	Okayama			JPX
Shibuya; Takashi	Okayama			JPX
Sugimoto; Toshiyuki	Okayama			JPX
Miyake; Toshio	Okayama			JPX

US-CL-CURRENT: 536/123.1; 435/101, 435/95, 435/96, 435/97, 435/98, 536/102,
536/103, 536/123.12, 536/124

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw. Desc](#) | [Image](#)

13. Document ID: US 5667791 A

L6: Entry 13 of 36

File: USPT

Sep 16, 1997

US-PAT-NO: 5667791

DOCUMENT-IDENTIFIER: US 5667791 A

TITLE: X-ray induced skin damage protective composition

DATE-ISSUED: September 16, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hersh; Theodore	Atlanta	GA		
Warshaw; Michael A.	Savannah	GA		

US-CL-CURRENT: 424/401; 514/844, 514/937, 514/944

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw Desc](#) | [Image](#)

14. Document ID: US 5663223 A

L6: Entry 14 of 36

File: USPT

Sep 2, 1997

US-PAT-NO: 5663223

DOCUMENT-IDENTIFIER: US 5663223 A

TITLE: Flavor protectant closure liner compositions

DATE-ISSUED: September 2, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Teumac; Fred N.	Conyngham	PA		
Rassouli; Mahmood R.	Hazelton	PA		
Rusnock; Janine M.	Hazelton	PA		
Irwin; Anthony	Baldwinsville	NY		

US-CL-CURRENT: 524/109; 524/108, 524/110, 524/111, 524/170, 524/418

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw Desc](#) | [Image](#)

15. Document ID: US 5656308 A

L6: Entry 15 of 36

File: USPT

Aug 12, 1997

US-PAT-NO: 5656308

DOCUMENT-IDENTIFIER: US 5656308 A

TITLE: Non-reducing oligosaccharide with neotrehalose structure, and its production and uses

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Aga; Hajime	Okayama			JPX
Shibuya; Takashi	Okayama			JPX
Sugimoto; Toshiyuki	Okayama			JPX
Miyake; Toshio	Okayama			JPX

US-CL-CURRENT: 426/3, 424/493, 424/59, 426/48, 426/548, 426/658, 426/804,
435/101, 435/193, 435/195, 435/200, 435/97, 435/99, 514/54, 536/118, 536/123.1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

16. Document ID: US 5607707 A

L6: Entry 16 of 36

File: USPT

Mar 4, 1997

US-PAT-NO: 5607707

DOCUMENT-IDENTIFIER: US 5607707 A

TITLE: Compositions

DATE-ISSUED: March 4, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Ford; Michael A.	Coleford			GB2
Mellor; Clive	Monmouth			GB7
Wakefield; Jayne L.	Cinderford			GB2

US-CL-CURRENT: 426/2, 426/262, 426/540, 426/541, 426/602, 426/604, 426/73

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

17. Document ID: US 5567424 A

L6: Entry 17 of 36

File: USPT

Oct 22, 1996

US-PAT-NO: 5567424

DOCUMENT-IDENTIFIER: US 5567424 A

TITLE: Fiber, antioxidant, herbal and enzyme supplemented beverage composition for human consumption

DATE-ISSUED: October 22, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hastings; Carl W.	Glencoe	MO		

US-CL-CURRENT: 424/195.17; 424/728, 424/756, 424/94.66

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw. Desc](#) | [Image](#)

18. Document ID: US 5523099 A

L6: Entry 18 of 36

File: USPT

Jun 4, 1996

US-PAT-NO: 5523099

DOCUMENT-IDENTIFIER: US 5523099 A

TITLE: Non-reducing oligosaccharaide with neotrehalose structure, and its production and uses

DATE-ISSUED: June 4, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Aga; Hajime	Okayama			JPX
Shibuya; Takashi	Okayama			JPX
Sugimoto; Toshiyuki	Okayama			JPX
Miyake; Toshio	Okayama			JPX

US-CL-CURRENT: 426/3; 424/493, 424/59, 426/48, 426/548, 426/658, 426/804,
435/101, 435/193, 435/195, 435/200, 435/97, 435/99, 514/54, 536/118, 536/123.1

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw. Desc](#) | [Image](#)

19. Document ID: US 5510250 A

L6: Entry 19 of 36

File: USPT

Apr 23, 1996

US-PAT-NO: 5510250

DOCUMENT-IDENTIFIER: US 5510250 A

TITLE: Non-reducing oligosaccharide with neotrehalose structure, and its production and uses

DATE-ISSUED: April 23, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Aga; Hajime	Okayama			JPX
Shibuya; Takashi	Okayama			JPX
Sugimoto; Toshiyuki	Okayama			JPX
Miyake; Toshio	Okayama			JPX

US-CL-CURRENT: 435/97; 435/101, 435/193, 435/195, 435/200, 435/99, 514/54,
536/123.1, 536/124

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw. Desc](#) | [Image](#)

20. Document ID: US 5409692 A

L6: Entry 20 of 36

File: USPT

Apr 25, 1995

US-PAT-NO: 5409692

DOCUMENT-IDENTIFIER: US 5409692 A

TITLE: Glucosyltransferase inhibitors, as well as dental caries prevention methods and anticarious foods using the same

DATE-ISSUED: April 25, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nakahara; Koichi	Ibaraki			JPX
Ono; Hiroyuki	Kobe			JPX
Ogura; Kyoichi	Kyoto			JPX

US-CL-CURRENT: 424/49; 424/58

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw. Desc](#) | [Image](#)

21. Document ID: US 5244887 A

L6: Entry 21 of 36

File: USPT

Sep 14, 1993

US-PAT-NO: 5244887

DOCUMENT-IDENTIFIER: US 5244887 A

TITLE: Stanols to reduce cholesterol absorption from foods and methods of preparation and use thereof

DATE-ISSUED: September 14, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Straub; Carl D.	Little Rock	AR	72212	

US-CL-CURRENT: 514/182; 426/541

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KIMC](#) | [Draw. Desc](#) | [Image](#)

22. Document ID: US 5229096 A

L6: Entry 22 of 36

File: USPT

Jul 20, 1993

US-PAT-NO: 5229096

DOCUMENT-IDENTIFIER: US 5229096 A

TITLE: Silica gel

DATE-ISSUED: July 20, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cohen; Howard J.	Baltimore	MD		

US-CL-CURRENT: 423/338; 502/233, 516/111, 521/53

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KIMC](#) | [Draw. Desc](#) | [Image](#)

23. Document ID: US 5114723 A

L6: Entry 23 of 36

File: USPT

May 19, 1992

US-PAT-NO: 5114723

DOCUMENT-IDENTIFIER: US 5114723 A

TITLE: Beverage compositions for human consumption

DATE-ISSUED: May 19, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stray-Gundersen; James	Dallas	TX		

US-CL-CURRENT: 426/74; 426/590

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KIMC](#) | [Draw. Desc](#) | [Image](#)

24. Document ID: US 5032411 A

L6: Entry 24 of 36

File: USPT

Jul 16, 1991

US-PAT-NO: 5032411

DOCUMENT-IDENTIFIER: US 5032411 A

TITLE: Beverage compositions for human consumption

DATE-ISSUED: July 16, 1991

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Stray-Gundersen; James	Dallas	TX		

US-CL-CURRENT: 426/74; 426/590

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Drawn Desc](#) | [Image](#)

25. Document ID: US 4963380 A

L6: Entry 25 of 36

File: USPT

Oct 16, 1990

US-PAT-NO: 4963380

DOCUMENT-IDENTIFIER: US 4963380 A

TITLE: Beverages containing fish oils stabilized with fructose

DATE-ISSUED: October 16, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Schroeder; Lisa R.	Brooklyn Park	MN		
Muffett; Dorothy J.	Bloomington	MN		

US-CL-CURRENT: 426/330.3; 426/330, 426/330.6, 426/541, 426/544, 426/602, 426/613

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Drawn Desc](#) | [Image](#)

26. Document ID: US 4760080 A

L6: Entry 26 of 36

File: USPT

Jul 26, 1988

US-PAT-NO: 4760080

DOCUMENT-IDENTIFIER: US 4760080 A

TITLE: Composition for the temporary stimulation of urine production

DATE-ISSUED: July 26, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Barron; Larry	Winnipeg, MB			CAX
Barron; Susan C.	Winnipeg, MB			CAX

US-CL-CURRENT: 514/251, 514/474, 514/904

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw Desc](#) | [Image](#)

27. Document ID: US 4572915 A

L6: Entry 27 of 36

File: USPT

Feb 25, 1986

US-PAT-NO: 4572915

DOCUMENT-IDENTIFIER: US 4572915 A

TITLE: Clear micellized solutions of fat soluble essential nutrients

DATE-ISSUED: February 25, 1986

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Crooks; Michael J.	Chatswood			AUX

US-CL-CURRENT: 514/458; 424/731, 424/764, 514/167, 514/168, 514/546, 514/552,
514/558, 514/725, 514/904

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KOMC](#) | [Draw Desc](#) | [Image](#)

28. Document ID: US 3998753 A

L6: Entry 28 of 36

File: USPT

Dec 21, 1976

US-PAT-NO: 3998753

DOCUMENT-IDENTIFIER: US 3998753 A

TITLE: Water dispersible carotenoid preparations and processes thereof

DATE-ISSUED: December 21, 1976

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Antoshkiw; Thomas William	Kearny	NJ		
Cannalonga; Marco Alfred	Fort Lee	NJ		
Koff; Arnold	West Orange	NJ		

US-CL-CURRENT: 516/58; 252/363.5, 426/250, 426/540, 426/541

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KIMC](#) [Draw Desc](#) [Image](#) 29. Document ID: JP 08104886 A

L6: Entry 29 of 36

File: JPAB

Apr 23, 1996

PUB-NO: JP408104886A

DOCUMENT-IDENTIFIER: JP 08104886 A

TITLE: AQUATIC ANIMAL FAT AND OIL COMPOSITION AND FOOD AND BEVERAGE CONTAINING
THE SAME

PUBN-DATE: April 23, 1996

INVENTOR-INFORMATION:

NAME

COUNTRY

NAGASAKA, YOSHIHIDE

SAKURAI, YASUKO

TANAKA, YOSHIHARU

INT-CL (IPC): C11B 5/00; A23D 7/04; A23D 9/04; A23L 2/52; C11B 9/00

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KIMC](#) [Draw Desc](#) [Image](#) 30. Document ID: JP 05156247 A

L6: Entry 30 of 36

File: JPAB

Jun 22, 1993

PUB-NO: JP405156247A

DOCUMENT-IDENTIFIER: JP 05156247 A

TITLE: NEW BENZOPYRANE DERIVATIVE

PUBN-DATE: June 22, 1993

INVENTOR-INFORMATION:

NAME

COUNTRY

HATA, KAZUHIKO

SHIMIZU, NOBUHISA

ARISUMI, HIROMI

INT-CL (IPC): C09K 15/08; C07D 311/70

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#)[KIMC](#) [Draw Desc](#) [Clip Img](#) [Image](#)

Terms	Documents
tocopher\$ same beverage\$	36

WEST**Generate Collection****Search Results - Record(s) 31 through 36 of 36 returned.** **31. Document ID: JP 04368326 A**

L6: Entry 31 of 36

File: JPAB

Dec 21, 1992

PUB-NO: JP404368326A
DOCUMENT-IDENTIFIER: JP 04368326 A
TITLE: NEW COMPOSITION

PUBN-DATE: December 21, 1992

INVENTOR-INFORMATION:

NAME	COUNTRY
NAKABAYASHI, FUMIKO	
KITAGAWA, YOSHINORI	
AKIMOTO, KENGO	
SUGANO, MICHICHIRO	

INT-CL (IPC): A61K 31/34; A23L 1/03; A23L 1/30; A23L 3/37; A61K 31/355; A61K 47/22; A61K 35/78

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Clip Img	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	---------------------------	--------------------------	-----------------------

 32. Document ID: RU 2168901 C1

L6: Entry 32 of 36

File: DWPI

Jun 20, 2001

DERWENT-ACC-NO: 2001-431201
DERWENT-WEEK: 200146
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Dairy beverage soybean milk

INVENTOR: GONCHAROVA, L V; KOVALENKO, A I ; KUZMENKO, N G

PRIORITY-DATA: 1999RU-0127944 (December 30, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RU 2168901 C1	June 20, 2001		000	A23C009/00

INT-CL (IPC): A23C 9/00; A23C 11/00; A23C 11/10; A23L 1/19; A23L 1/20; A23L 2/38

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	---------------------------	-----------------------

33. Document ID: RU 2156285 C1

L6: Entry 33 of 36

File: DWPI

Sep 20, 2000

DERWENT-ACC-NO: 2001-059274
DERWENT-WEEK: 200107
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Weakly alcoholic cocktail

INVENTOR: SOKOLOV YU, V

PRIORITY-DATA: 2000RU-0101165 (January 20, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
RU 2156285 C1	September 20, 2000		000	C12G003/06

INT-CL (IPC): C12G 3/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw. Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	----------------------------	-----------------------

 34. Document ID: JP 2000178294 A

L6: Entry 34 of 36

File: DWPI

Jun 27, 2000

DERWENT-ACC-NO: 2000-501286
DERWENT-WEEK: 200045
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Manufacture of penta-acetyl-beta-D-glucose useful as intermediate for glycosides, useful in pharmaceuticals and as flavoring agent, involves reacting glucose with aprotic solvent and acetic anhydride

PRIORITY-DATA: 1998JP-0375597 (December 17, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 2000178294 A	June 27, 2000		003	C07H013/06

INT-CL (IPC): C07H 13/06

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KOMC	Draw. Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	----------------------	----------------------------	-----------------------

 35. Document ID: WO 8905101 A, AU 8928124 A, CA 1331930 C

L6: Entry 35 of 36

File: DWPI

Jun 15, 1989

DERWENT-ACC-NO: 1989-192516
DERWENT-WEEK: 198926
COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Stable, flavoured fish oil beverages - using fructose as stabilising agent for tert butyl hydroquinone, butylated hydroxy-anisole and butylated hydroxy-toluene

INVENTOR: MUFFETT, D J; SCHROEDER, L R

PRIORITY-DATA: 1987US-0126327 (November 30, 1987)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 8905101 A	June 15, 1989	E	021	
AU 8928124 A	July 5, 1989		000	
CA 1331930 C	September 13, 1994		000	A23L002/00

INT-CL (IPC): A23L 2/02

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

36. Document ID: DE 2411529 A, CH 585525 A, FR 2221499 A, GB 1407779 A, JP 49126727 A, US 3886294 A

L6: Entry 36 of 36

File: DWPI

Sep 26, 1974

DERWENT-ACC-NO: 1974-69797V

DERWENT-WEEK: 197440

COPYRIGHT 2001 DERWENT INFORMATION LTD

TITLE: Carotenoid dye prepns. for foodstuffs - contg. polysorbate emulsifier to give clear dispersions in water

PRIORITY-DATA: 1973US-0340141 (March 12, 1973)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 2411529 A	September 26, 1974		000	
CH 585525 A	March 15, 1977		000	
FR 2221499 A	November 15, 1974		000	
GB 1407779 A	September 24, 1975		000	
JP 49126727 A	December 4, 1974		000	
US 3886294 A	May 27, 1975		000	

INT-CL (IPC): A23L 1/26; C09B 67/00

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KMC](#) | [Draw Desc](#) | [Image](#)

[Generate Collection](#)

Terms	Documents
tocopher\$ same beverage\$	36

Documents, starting with Document:

Display Format:

WEST **Generate Collection**

L6: Entry 27 of 36

File: USPT

Feb 25, 1986

DOCUMENT-IDENTIFIER: US 4572915 A

TITLE: Clear micellized solutions of fat soluble essential nutrients

CLPR:

16. An optically substantially clear, substantially homogeneous micellized aqueous solution of one or more fat soluble essential nutrients, having micels of the size not substantially exceeding 2 microns, which solution remains substantially clear when added to an aqueous diluent such as a beverage for human consumption, the fat soluble essential nutrient being selected from a group consisting of essential fatty acids, alpha-tocopherol, pharmaceutically acceptable derivatives of alpha-tocopherol having Vitamin E activity, retinol, pharmaceutically acceptable derivatives of retinol having Vitamin A activity, calciferol and pharmaceutically acceptable derivatives of calciferol having vitamin D activity, said composition having been prepared by a process comprising the steps of:

CLPR:

24. A substantially optically clear, substantially homogeneous aqueous micellized solution of one or more fat soluble essential nutrients, micel size of the nutrients being of approximately two (2) microns or smaller, the solution being capable of remaining substantially homogeneous and substantially optically clear when added to a substantially clear substantially homogeneous, substantially clear aqueous phase such as water or a beverage for human consumption, the essential nutrient being selected from a group consisting of essential fatty acids, alpha-tocopherol, pharmaceutically acceptable derivatives of alpha-tocopherol having Vitamin E activity, retinol, pharmaceutically acceptable derivatives of retinol having Vitamin A activity, calciferol and pharmaceutically acceptable derivatives of calciferol having vitamin D activity, the solution essentially consisting of:

CLPR:

37. A process for preparing an optically substantially clear, substantially homogeneous micellized aqueous solution of one or more fat soluble essential nutrients, having micels of the size not substantially exceeding 2 microns, which solution remains substantially clear when added to an aqueous diluent such as a beverage for human consumption, the fat soluble essential nutrient being selected from a group consisting of essential fatty acids, alpha-tocopherol, pharmaceutically acceptable derivatives of alpha-tocopherol having Vitamin E activity, retinol, pharmaceutically acceptable derivatives of retinol having Vitamin A activity, calciferol and pharmaceutically acceptable derivatives of calciferol having vitamin D activity, said process comprising the steps of:

WEST

L6: Entry 24 of 36

File: USPT

Jul 16, 1991

DOCUMENT-IDENTIFIER: US 5032411 A

TITLE: Beverage compositions for human consumption

BSPR:

Vitamin E for the present invention is supplied by dl-.alpha.-tocopherol acetate. Preferably, Vitamin E is present in the drinkable beverage composition or concentrate of the present invention in an amount in the range of from about 20 to about 60 international units ("I.U."), and more preferably, in an amount in the range of from about 30 to about 50 I.U. per liter of the drinkable beverage.

WEST

L6: Entry 17 of 36

File: USPT

Oct 22, 1996

DOCUMENT-IDENTIFIER: US 5567424 A

TITLE: Fiber, antioxidant, herbal and enzyme supplemented beverage composition for human consumption

BSPR:

The present invention contains the following antioxidants--Vitamin C (Ascorbic Acid), Vitamin E (d alpha tocopheryl acetate) and Beta Carotene. The beverage composition of this invention delivers the following antioxidants per serving:

WEST **Generate Collection**

L6: Entry 13 of 36

File: USPT

Sep 16, 1997

DOCUMENT-IDENTIFIER: US 5667791 A

TITLE: X-ray induced skin damage protective composition

DEPR:

Vitamins, as those included in these preparations, are naturally derived from dietary fruits and vegetables, particularly ascorbates and caretenoids, but also are sources of tocopherols. Natural and synthetic vitamins may be taken as supplements in various foods and beverages or as pharmaceutic preparations of multivitamins and minerals. These preparations provide these vitamins in sufficient concentrations to exert locally their physiologic and pharmacologic properties.

Documents, starting with Document: **Display Format:**

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)**Search Results -****Terms****Documents**

tocopher\$ same beverage\$

36

Database:

- US Patents Full-Text Database
- US Pre-Grant Publication Full-Text Database
- JPO Abstracts Database
- EPO Abstracts Database
- Derwent World Patents Index
- IBM Technical Disclosure Bulletins

tocopher\$ same beverage\$

[Refine Search:](#)[Clear](#)**Search History****Today's Date: 10/17/2001**

<u>DB Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
USPT,JPAB,EPAB,DWPI,TDBD	tocopher\$ same beverage\$	36	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	tocopher\$ and beverage\$	633	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	11 and beverage\$	0	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	12 and beverage\$	0	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	11 and liposome\$	16	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	tocopher\$ adj1 phosphate\$	126	<u>L1</u>

WEST**Generate Collection****Search Results - Record(s) 1 through 16 of 16 returned.** **1. Document ID: US 6290991 B1**

L2: Entry 1 of 16

File: USPT

Sep 18, 2001

US-PAT-NO: 6290991

DOCUMENT-IDENTIFIER: US 6290991 B1

TITLE: Solid dose delivery vehicle and methods of making same

DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Roser; Bruce J.	Cambridge			GBX
Kampinga; Jaap	Groningen			NLX
Colaco; Camilo	Cambridge			GBX
Blair; Julian	Cambridgeshire			GBX

US-CL-CURRENT: 424/502; 424/500, 424/501

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw. Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	---------------------	----------------------------	-----------------------

 2. Document ID: US 5952001 A

L2: Entry 2 of 16

File: USPT

Sep 14, 1999

US-PAT-NO: 5952001

DOCUMENT-IDENTIFIER: US 5952001 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: September 14, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 514/100

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KMC	Draw. Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	------------------------	---------------------	----------------------------	-----------------------

3. Document ID: US 5716800 A

L2: Entry 3 of 16

File: USPT

Feb 10, 1998

US-PAT-NO: 5716800

DOCUMENT-IDENTIFIER: US 5716800 A

TITLE: Anti-acne composition containing a Poria cocos wolf extract

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX

US-CL-CURRENT: 435/52; 435/254.1, 435/911, 552/540, 552/546

Full	Title	Citation	Front	Review	Classification	Date	Reference	KOMC	Drawn Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	----------------------	----------------------------	-----------------------

 4. Document ID: US 5658956 A

L2: Entry 4 of 16

File: USPT

Aug 19, 1997

US-PAT-NO: 5658956

DOCUMENT-IDENTIFIER: US 5658956 A

TITLE: Bioadhesive-wound healing compositions and methods for preparing and using same

DATE-ISSUED: August 19, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Martin; Alain	Ringo	NJ		
Leung; Sau-Hung S.	Parsippany	NJ		

US-CL-CURRENT: 514/724; 424/445, 424/446, 424/447, 424/DIG.13, 514/458, 514/725,
514/886, 514/887, 514/904, 514/969

Full	Title	Citation	Front	Review	Classification	Date	Reference	KOMC	Drawn Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	----------------------	----------------------------	-----------------------

 5. Document ID: US 5656618 A

L2: Entry 5 of 16

File: USPT

Aug 12, 1997

US-PAT-NO: 5656618

DOCUMENT-IDENTIFIER: US 5656618 A

TITLE: Use of an .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: August 12, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw. Desc](#) | [Image](#)

6. Document ID: US 5652274 A

L2: Entry 6 of 16

File: USPT

Jul 29, 1997

US-PAT-NO: 5652274

DOCUMENT-IDENTIFIER: US 5652274 A

TITLE: Therapeutic-wound healing compositions and methods for preparing and using same

DATE-ISSUED: July 29, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Martin; Alain	Ringoes	NJ	08551	

US-CL-CURRENT: 514/724; 514/461, 514/562, 514/567, 514/725, 514/774, 514/784

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Draw. Desc](#) | [Image](#)

7. Document ID: US 5643597 A

L2: Entry 7 of 16

File: USPT

Jul 1, 1997

US-PAT-NO: 5643597

DOCUMENT-IDENTIFIER: US 5643597 A

TITLE: Use of a tocopherol phosphate or one of its derivatives for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: July 1, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Dumas; Marc	Colombes			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 424/401, 424/73, 424/741, 514/100, 514/147, 514/458,
514/944

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [KOMC](#) [Draw Desc](#) [Image](#)

8. Document ID: US 5633285 A

L2: Entry 8 of 16

File: USPT

May 27, 1997

US-PAT-NO: 5633285

DOCUMENT-IDENTIFIER: US 5633285 A

TITLE: Cytoprotective wound healing compositions and methods for preparing and using same

DATE-ISSUED: May 27, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Martin; Alain	Ringoos	NJ		

US-CL-CURRENT: 514/724; 514/458, 514/725

[Full](#) [Title](#) [Citation](#) [Front](#) [Review](#) [Classification](#) [Date](#) [Reference](#) [KOMC](#) [Draw Desc](#) [Image](#)

9. Document ID: US 5610180 A

L2: Entry 9 of 16

File: USPT

Mar 11, 1997

US-PAT-NO: 5610180

DOCUMENT-IDENTIFIER: US 5610180 A

TITLE: Ionizable congeners of aromatic and aliphatic alcohols as anti-leukemia agents

DATE-ISSUED: March 11, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fariss; Marc W.	Manakin-Sabot	VA		

US-CL-CURRENT: 514/458; 514/182

Full	Title	Citation	Front	Review	Classification	Date	Reference	KOMC	Drawn Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	----------------------	----------------------------	-----------------------

10. Document ID: US 5605694 A

L2: Entry 10 of 16

File: USPT

Feb 25, 1997

US-PAT-NO: 5605694

DOCUMENT-IDENTIFIER: US 5605694 A

TITLE: Stabilized emulsion intended to moisturize the skin, and use thereof

DATE-ISSUED: February 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Nadaud; Jean-Francois	Clamart			FRX
Laugier; Jean-Pierre	Antony			FRX
Le Royer; Isabelle	Jouy en Josas			FRX
Bernard; Dominique	Paris			FRX

US-CL-CURRENT: 424/401; 514/844, 514/845, 514/846, 514/941

Full	Title	Citation	Front	Review	Classification	Date	Reference	KOMC	Drawn Desc	Image
----------------------	-----------------------	--------------------------	-----------------------	------------------------	--------------------------------	----------------------	---------------------------	----------------------	----------------------------	-----------------------

11. Document ID: US 5603949 A

L2: Entry 11 of 16

File: USPT

Feb 18, 1997

US-PAT-NO: 5603949

DOCUMENT-IDENTIFIER: US 5603949 A

TITLE: Use of a tocopherol phosphate or one of its derivatives, for the preparation of cosmetic or pharmaceutical compositions and compositions so obtained

DATE-ISSUED: February 18, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Dumas; Marc	Colombes			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 424/450; 428/402.2, 514/458, 549/220

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw Desc](#) | [Image](#)

12. Document ID: US 5503828 A

L2: Entry 12 of 16

File: USPT

Apr 2, 1996

US-PAT-NO: 5503828

DOCUMENT-IDENTIFIER: US 5503828 A

TITLE: Alpha interferon composition and method for its production from human peripheral blood leukocytes

DATE-ISSUED: April 2, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Testa; Douglas	Neshanic Station	NJ		
Liao; Mei-June	Monmouth Junction	NJ		
Ferencz-Biro; Katalin	North Brunswick	NJ		
Rashidbaigi; Abbas	Morris Plains	NJ		
DiPaola; Mario	Bayside	NY		
Padhye; Manisha	North Brunswick	NJ		

US-CL-CURRENT: 424/85.7; 424/85.4, 514/2, 514/21, 530/351

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)

[KIMC](#) | [Draw Desc](#) | [Image](#)

13. Document ID: US 5387579 A

L2: Entry 13 of 16

File: USPT

Feb 7, 1995

US-PAT-NO: 5387579

DOCUMENT-IDENTIFIER: US 5387579 A

TITLE: Use of .alpha.-tocopherol phosphate or a derivative thereof for preparing cosmetic, dermatological or pharmaceutical compositions, and compositions thereby obtained

DATE-ISSUED: February 7, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Meybeck; Alain	Courbevoie			FRX
Bonte; Frederic	Courbevoie			FRX
Marechal; Christian	Paris			FRX

US-CL-CURRENT: 514/100; 424/450, 424/741, 514/458

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Drawn Desc](#) | [Image](#)

14. Document ID: US 5336485 A

L2: Entry 14 of 16

File: USPT

Aug 9, 1994

US-PAT-NO: 5336485

DOCUMENT-IDENTIFIER: US 5336485 A

TITLE: Method for protecting animals against tacrine induced cytotoxic injury using sterol compounds

DATE-ISSUED: August 9, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fariss; Marc W.	Manakin-Sabot	VA		

US-CL-CURRENT: 514/182; 514/297

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#) | [KOMC](#) | [Drawn Desc](#) | [Image](#)

15. Document ID: US 5198432 A

L2: Entry 15 of 16

File: USPT

Mar 30, 1993

US-PAT-NO: 5198432

DOCUMENT-IDENTIFIER: US 5198432 A

TITLE: Method of preventing chlorohydrocarbon toxicity using sterol derivatives

DATE-ISSUED: March 30, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fariss; Marc W.	Manakin-Sabot	VA		

US-CL-CURRENT: 514/182; 514/758

[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KMC](#) | [Draw Desc](#) | [Image](#)**□ 16. Document ID: US 5114957 A**

L2: Entry 16 of 16

File: USPT

May 19, 1992

US-PAT-NO: 5114957

DOCUMENT-IDENTIFIER: US 5114957 A

TITLE: Tocopherol-based antiviral agents and method of using same

DATE-ISSUED: May 19, 1992

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Handler; Sheldon S.	La Jolla	CA		
Sanchez; Robert	Carlsbad	CA		

US-CL-CURRENT: 514/356; 514/458[Full](#) | [Title](#) | [Citation](#) | [Front](#) | [Review](#) | [Classification](#) | [Date](#) | [Reference](#)[KMC](#) | [Draw Desc](#) | [Image](#)**Generate Collection**

Terms	Documents
11 and liposome\$	16

Display

30

Documents, starting with Document: **16****Display Format:** [CIT](#) | [Change Format](#)

WEST

 Generate Collection

L2: Entry 14 of 16

File: USPT

Aug 9, 1994

DOCUMENT-IDENTIFIER: US 5336485 A

TITLE: Method for protecting animals against tacrine induced cytotoxic injury using sterol compounds

DEPR:

Table 10 shows the protective effect of dl-alpha-tocopheryl phosphate on chemical induced toxicity and lipid peroxidation in cultured rat hepatocytes;

DEPR:

To determine the relative cytoprotective potency of various tocopherol derivatives, the effect of varying doses of a tocopherol analog on the protection against EMS-induced toxicity was examined in vitro on rat hepatocyte suspensions. Specifically, the following ionizable tocopherol congeners were tested: alpha-TS, alpha tocopheryl glutarate (alpha-TG), and alpha tocopheryl phosphate (alpha-TP). FIG. 3 shows a graphical representation of the percentage cytoprotection achieved with varying doses of the tocopherol derivatives. The response of varying quantities of alpha-T and alpha-TA are also represented on FIG. 3. Alpha-TS has the greatest potency with 100% protection against the loss of viability and metabolic performance observed at concentrations as low as 2. μ M. At 2. μ M, the cellular alpha-TS content was approximately 0.1 nmoles/10.⁶ cells or 10 nmoles/gram of tissue. With 0.5. μ M alpha-TS, substantial (85%) protection against loss of viability was observed. At 0.5. μ M, the cellular alpha-TS content is approximately 0.025nmoles/10.⁶ cells. 0.1 nmoles is the lower detection limit. Since there are approximately 10.⁸ cells per gram of tissue, cytoprotection can be afforded by administering an appropriate amount of alpha-TS to a patient to achieve a 2.5 nmoles/gram concentration. Protection was not afforded hepatocytes incubated with alpha-T or alpha-TA at concentrations up to 250 . μ M. Significant protection against EMS toxicity was observed at alpha-TP medium concentrations of 50 . μ M and above. Possible explanations for the difference in potency observed between alpha-TS and alpha-TP are that the latter derivative was administered as water soluble salts in saline.

DEPR:

The experimental results demonstrate that cytoprotection results from accumulating an intact ionizable congener of an aromatic or aliphatic alcohol in the cell. Cellular accumulation of alpha-TS, an ionizable congener of an aromatic alcohol, is continuous and gradual (1.65 nmol/10.⁶ cells/hr; 25 . μ M dose) with a slow cellular release of succinate (0.65 nmol/10.⁶ cells/hr., as measured by alpha-tocopherol release; 25 . μ M dose). Release of the succinate moiety occurs through the action of cellular esterases and the succinate molecule acts as a substrate for increased energy production. Ionizable congeners of aromatic and aliphatic alcohols include the succinic ester of tocopherol, the methyl ester of tocopheryl succinic acid, the PEG ester of tocopheryl succinic acid, the succinic acid ester of cholesterol, dihydrocholesteryl succinate or sulfate, cholesterol succinate or phthalate, ergosterol succinate or sulfate, linoleyl succinate or any other ionizable ester or ether derivative of aromatic and aliphatic alcohols and their pharmaceutically acceptable salts and tris salts. By altering the ionizable side chain of the aromatic or aliphatic alcohol, anticytotoxic compounds will be created. The distance between the ionizable group and the aromatic carbon ring or the aliphatic ring or chain may be varied by increasing or decreasing the carbon chain length. For example, instead of tocopheryl succinate (4 carbons) or

cholesteryl succinate (4 carbons), esters of other dicarboxylic acids can be made; such as oxalic acid (2 carbons), malonic acid (3 carbons), adipic acid (6 carbons), and phthalic acid, et cetera. The number of carbon double bond carbons in the side chain between the ionizable group and the aromatic or aliphatic alcohol group can be varied. For example, aromatic and aliphatic esters of fumaric acid and maleic acid can be synthesized. The ionic strength of the ionizable side chain on the aromatic or aliphatic alcohol can be varied. For example, the number of ionizable groups on the side chain (citrate, hydroxy succinate; etc.) can be increased or the number of ionizable groups (diester of alpha-TP) can be reduced. The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol esters, tocopheryl phosphate esters, tocopheryl glutarate esters, tocopheryl succinate esters, or other aromatic or aliphatic esters of cellular constituents such as amino acids (lysine, arginine, cysteine, aspartate, glutamate), proteins (glutathione) lipids (phosphatidylcholine, omega-3 fatty acids), nucleic acids (adenosine, AMP), carbohydrates (glucuronic acid, glucose, fructose), and taurine (thiol ester). The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol esters, tocopheryl phosphate esters, tocopheryl glutarate esters, tocopheryl succinate esters, or other aromatic or aliphatic esters of compounds known to be cytoprotective such as retinyl phosphate (vitamin A analog), dithiotheitol, ascorbic acid (vitamin C) and reduced ubiquinone, metal chelators (EDTA), omega-3 fatty acids, calcium antagonists, and antagonists of excitatory amino acids (adenosine derivatives of alpha-amino adipate). The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol congeners or other aromatic or aliphatic congeners with an ether linkage between the side chain and the aromatic carbon ring of tocopherol or a sterol or with bulky side chains or aromatic groups situated in close proximity to the ester linkage (e.g., 2,2 dimethyl succinate). Diesters of alpha-T can be formulated with succinate (e.g., alpha-T-Succinate-T-alpha). These chemical alterations will retard or prevent the hydrolysis of the bond between the aromatic ring of tocopherol and the ionizable side chain. The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol esters, tocopheryl phosphate esters, tocopheryl glutarate esters, tocopheryl succinate esters, or other aromatic or aliphatic esters of compounds known to be involved in essential cellular processes such as substrates for cellular energy production (e.g., gluceraldehyde 3-phosphate, 3-phosphoglycerol phosphate, phosphoenol pyruvate, phosphocreatine, malate, oxalacetate and alpha-ketoglutarate, and glutarate). By altering the lipophilic aromatic or aliphatic alcohol, anticytotoxic, procytotoxic and therapeutic compounds can be produced. Phenolic or aromatic compounds can be used for the attachment of an ionizable side chain. Such phenolic compounds might include tocopherol, trolox (chromanol ring of tocopherol), butylated hydroxytoluene (BHT), butylated hydroxyanisole (BHA), tannins (polyphenols, e.g., ellagic acid or corilagin), phytol, bactoprenol, co-enzyme Q, buoxyphenol, anthracycline antibiotics, and heterocyclic alcohols (pyridines, pyrimidines, purines, etc.). Aliphatic compounds containing hydroxyl groups can be used for the attachment of an ionizable side chain. Such aliphatic compounds might include cholesterol, glycol polymers (propylene glycol or polyoxyethylene glycol), glycerin related compounds (glycerin, glycerol phosphate, monoacylglycerol, diacylglycerol, phosphatidylglycerol, cardiolipin, phosphatidyl inostiol, or sphingosine), steroids and their derivatives (estradiol, estriol, testosterone, methandriol (anabolic steroid), methylprednisolone, prednisolone, vitamins and their derivatives (retinal, riboflavin, pyridoxal), prostaglandins and their derivatives (PGE_{sub.2}, PGI₂, iloprost, PGF_x, or long chain fatty acids), or heterocyclic alcohols (pyroles, furans, imadazoles). The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol esters, tocopheryl phosphate esters, tocopheryl glutarate esters, tocopheryl succinate esters, or other aromatic or aliphatic esters of compounds known to be cytotoxic (including the inhibition of cellular energy production, e.g., malonate, 3-phosphoglycerol arsenate or halogenated derivatives of tricarboxylic acid cycle substrates, e.g., succinate) (See Gershon et al, J. Med. Chem. 20:606 (1979)). The chemical nature of the ionizable side chain can be varied by synthesizing tocopherol esters, tocopheryl phosphate esters, tocopheryl glutarate esters, tocopheryl succinate esters, or other aromatic and aliphatic esters of therapeutic drugs. This formulation should promote the cellular uptake and cellular retention of drugs

thus providing a cellular reservoir for the release of drugs at critical cellular sites. For example, the cellular uptake of genetically engineered peptides and other products could be facilitated by their chemical attachment to aromatic and aliphatic alcohols. For another example, a recently discovered antibacterial agent that specifically inhibits lipopolysaccharide synthesis, is limited by its inability to penetrate the bacterial membrane (See, Goldman et al., Nature, 329, 162 (1987) and Goldman et al, Science News, 132:180 (1987)). Peptides have been chemically attached to this antibacterial agent to promote bacterial uptake; however, these carriers are short lived *in vivo* and do not provide penetration into all bacterium. Combining alpha-T with the antibacterial agent [alpha-C(1,5-anhydro-7-amino-2,7-dideoxy-D-mannoheptopyranosyl)-carboxylate] through an ester linkage will produce an ionizable congener that will promote tocopheryl congener bacterium uptake and retention of the therapeutic agent (antibacterial) with its cellular release from tocopherol resulting from the action of bacterial esterases.

DEPL:

The lung, kidney, heart, erythrocytes and plasma accumulate significant amounts of alpha-TS when administered intraperitoneally (ip) or intravenously (iv). By changing the chemical form (K.sup.+ salt) or vehicles (liposomes), the accumulation of alpha-TS can be targeted towards specific tissues. Repeated administration, (f) in table 6, resulted in accumulation of alpha-TS in the central nervous system. Note that the results in Table 6 were determined twenty four hours after a single dose of alpha-TS. Additional tests revealed that alpha-TS could not be detected forty eight hours after a single dose administration of alpha-TS.

DETL:

TABLE 6 Tissue Distribution of Alpha-Tocopherol and Alpha- Tocopherol Succinate 24 Hours After a 100 mg/kg Dose of Alpha-Tocopherol Succinate (a) Vehicle control (No Alpha-TS) (1 dose) (b) Alpha-TS (ip) (Alpha-TS dissolved in peanut oil and ETOH) (1 dose) (c) Alpha-TS (ip) (K + salt of Alpha-TS dissolved in saline) (1 dose) (d) Alpha-TS (iv) (K + salt of Alpha-TS dissolved in saline) (1 dose) (e) Alpha-TS (iv) (Alpha-TS incorporated in liposomes) (1 dose) (f) Alpha-TS (ip) (Alpha-TS in olive oil) (7 doses administered 1 per day for 7 days)

(a) A-T 28 27 29 27 47 10 13 A-TS ND ND
 ND ND ND ND ND (b) A-T 51 34 37 31 42 13 14 A-TS 119 ND 31 47 90 7 8 (c) A-T 260
 37 45 48 93 21 22 A-TS 518 ND 15 18 60 19 24 (d) A-T 380 40 60 51 102 24 34 A-TS
 445 ND 27 24 385 18 30 (e) A-T 105 47 52 68 112 22 26 A-TS 322 ND ND 10 4843 6 5
 (f) A-T 121 30 48 41 89 21 -- A-TS 161 6 44 34 128 15 --
 N.D. Not Detected (Detection limit for
 AlphaTS was 5-10 nmol/gm of Tissue

DETL:

TABLE 10 Protective Effect of d₁-Alpha-Tocopheryl Phosphate on Chemical Induced Toxicity and Lipid Peroxidation in Cultured Rat Hepatocytes. Incubation Conditions Cell Death Lipid (6 hrs.) (%) Peroxidation Negative Control 10 .+- .1 2.3 .+- .0.3 (Vehicle Only) Positive Control 61 .+- .8 9.4 .+- .1.1 (50 mM EMS Only) EMS + d₁-alpha-TP 25 .mu.M 16 .+- .3 2.5 .+- .0.9 100 .mu.M 15 .+- .3 2.3 .+- .0.1 250 .mu.M 20 .+- .3 1.7 .+- .0.1 MDA/10⁶ sup.6 cells Lipid peroxidation reported as .mu.moles

DETL:

TABLE 17 Protective Effect of Tocopherol and Succinate Analogs on Carbon Tetrachloride Induced Lethality in Rats
 Tocopherol or Succinate Analog Days Survived After Administered CCl₄.sub.4
 Treatment Vehicle Control (Olive Oil) 2
 Alpha-Tocopherol (100 mg/kg) 3 Succinic Acid (100 mg/kg) 2 Succinic Acid, Na Salt (1 g/kg) 2 Monomethyl Succinate (1 g/kg) 2 Dimethyl Succinate (1 g/kg) 2 Alpha-Tocopheryl Succinate >7* (50 or 100 mg/Kg) Alpha-Tocopheryl Succinate >7*.sup.a (25 m/kg) Alpha-Tocopheryl Succinate, >7* K.sup.+ Salt (100 mg/kg)

Alpha-Tocopheryl Succinate Methyl >7*.sup.a Ester (100 mg/kg) Alpha-Tocopheryl Succinate Polyethylene >7* Glycol Ester (100 or 200 mg/Kg) Alpha-Tocopheryl Succinate Polyethylene >7* Glycol Ester (200 mg/Kg, iv) Alpha-Tocopheryl Succinate Polyethylene .sup. 2.sup.a Glycol Ester (200 mg/kg, oral) Alpha-Tocopheryl 3-Methyl Succinate .sup. 2.sup.a (100 mg/kg) Alpha-Tocopheryl Glutarate (100 mg/kg) 2 dl, alpha-Tocopheryl Phosphate, Na Salt 3 (100 mg/kg) Cholesterol (100 mg/kg) 2 Cholesteryl Succinate (100 mg/kg) >7*
sup.a two to three animals in group
survived. *P < .05, as compared to vehicle control